FIGURE 1
POURBAIX DIAGRAM AT 25° C WITH $1x10^0$ DISSOLVED MANGANESE CONCENTRATION

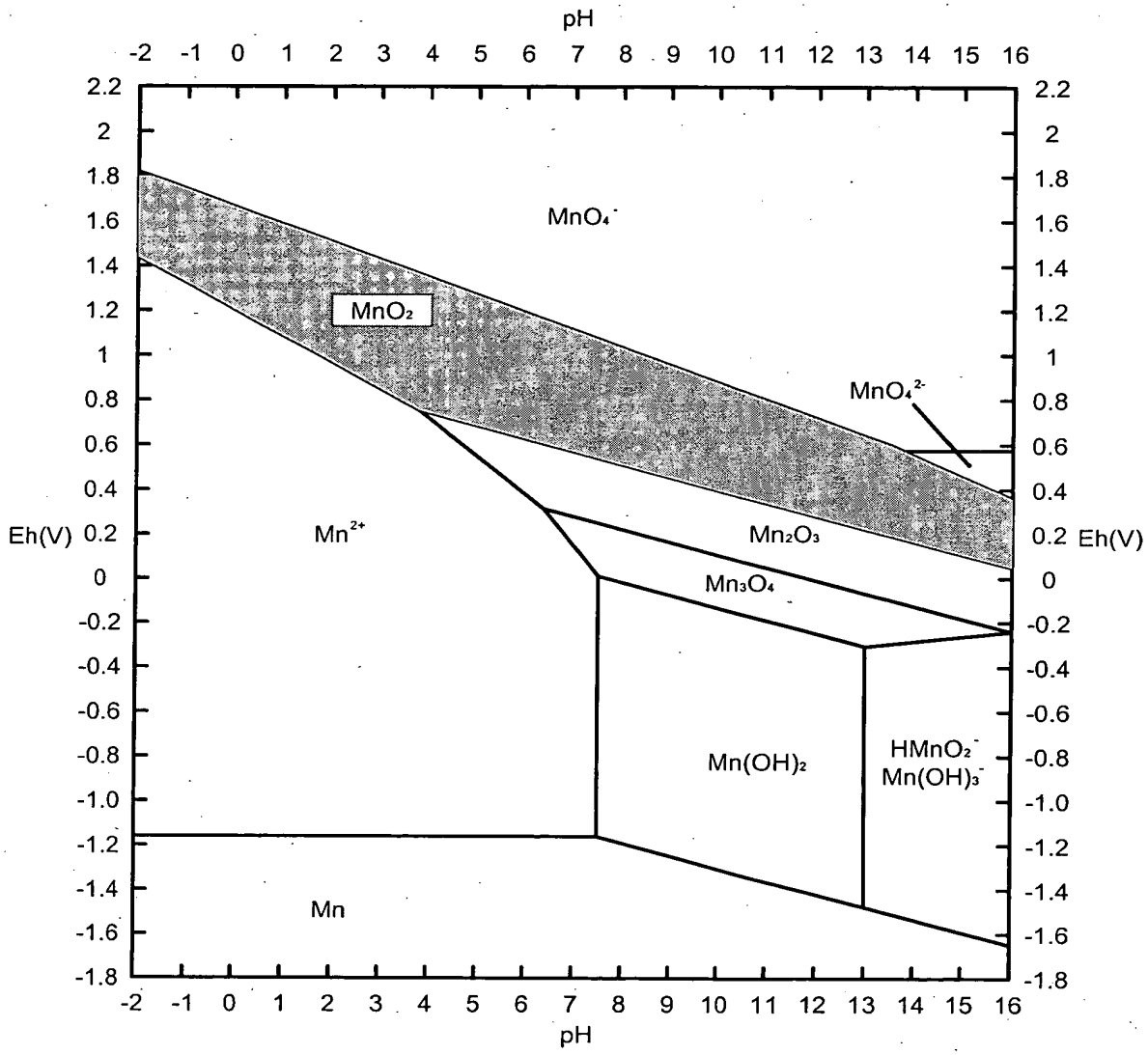

FIGURE 2
POURBAIX DIAGRAM AT 25° C WITH $1x10^{-6}$ DISSOLVED MANGANESE CONCENTRATION

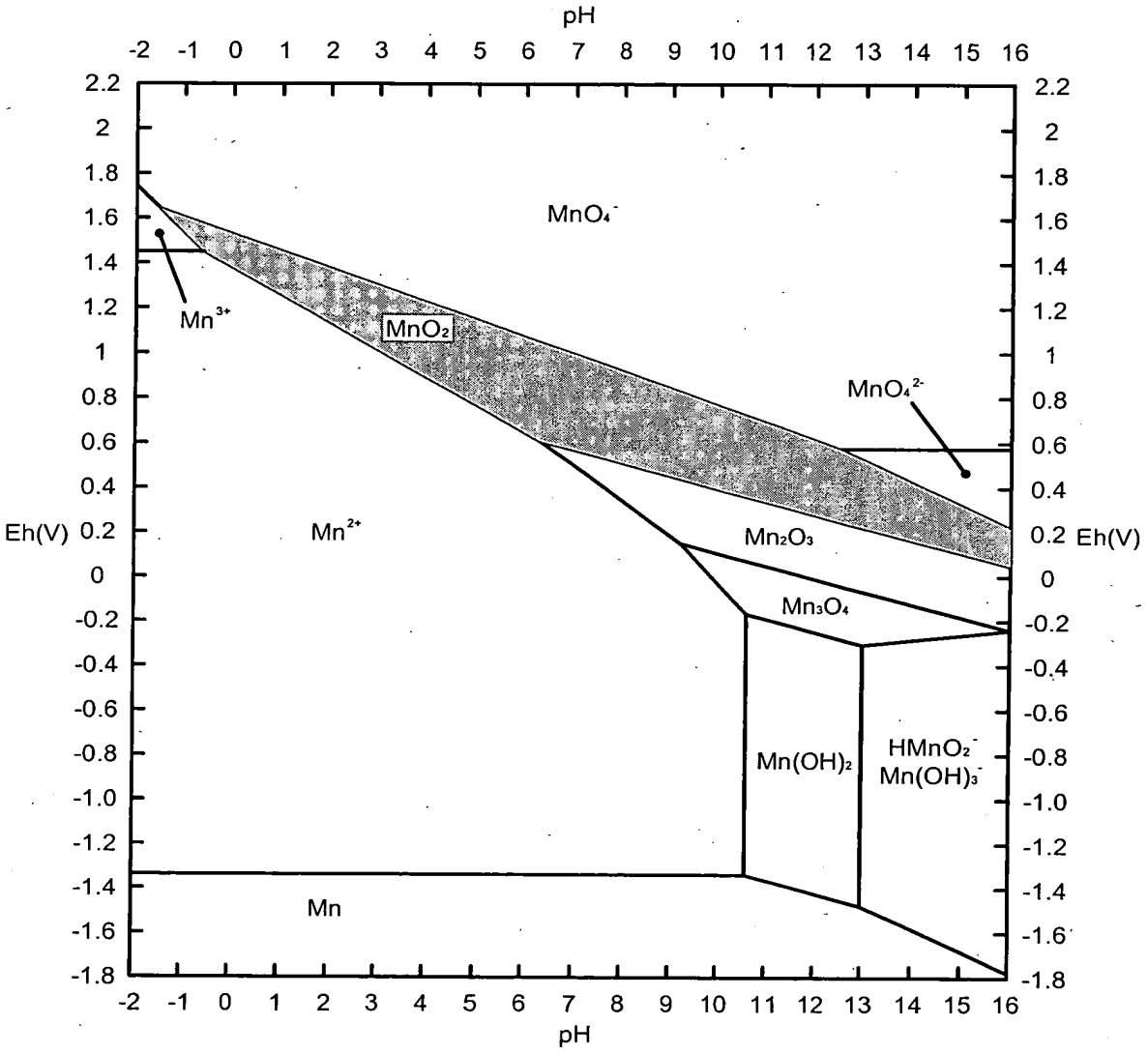

FIGURE 3
REGENERATION OF LOADED SORBENT

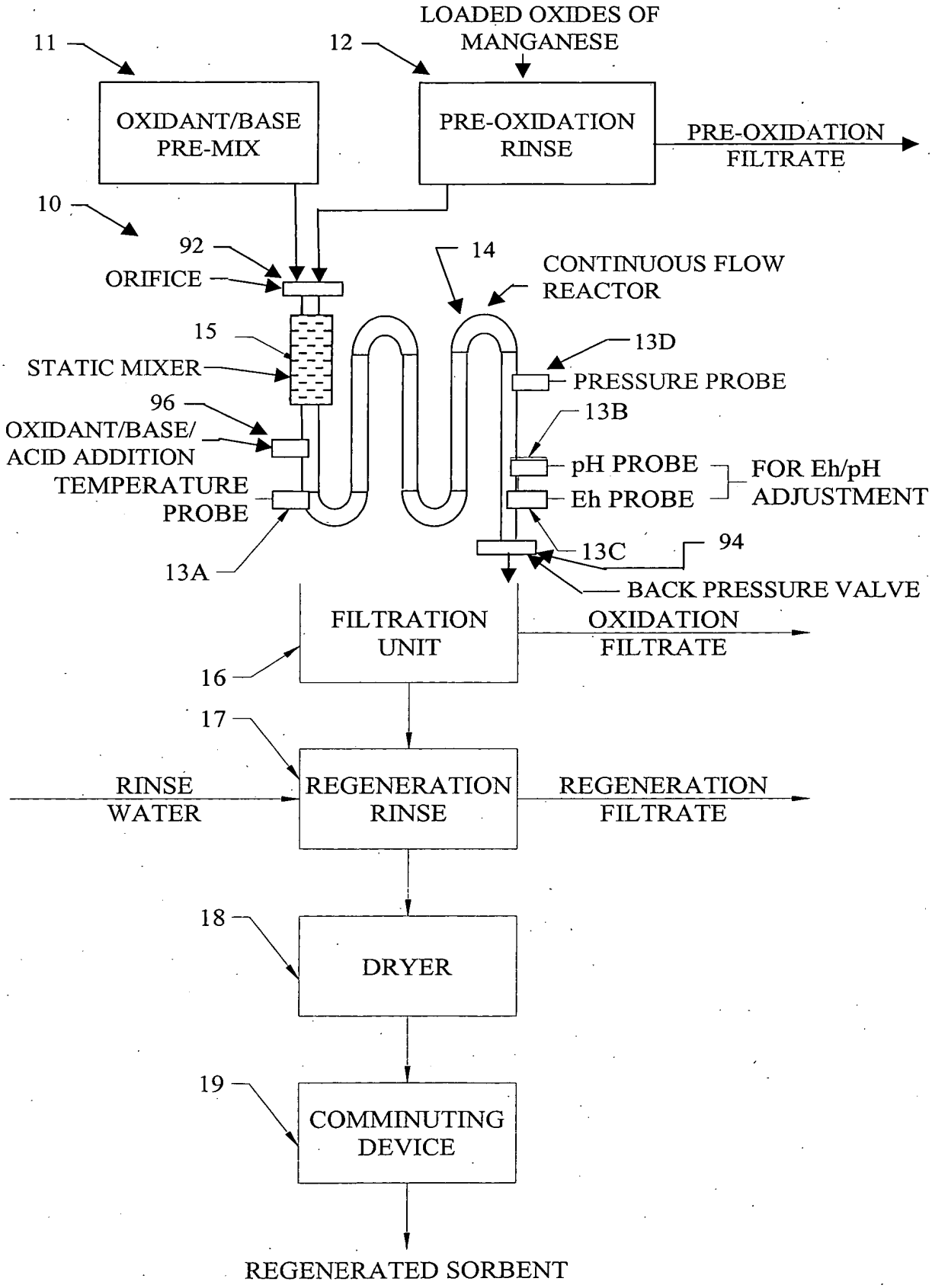

FIGURE 4
REGENERATION OF LOADED SORBENT

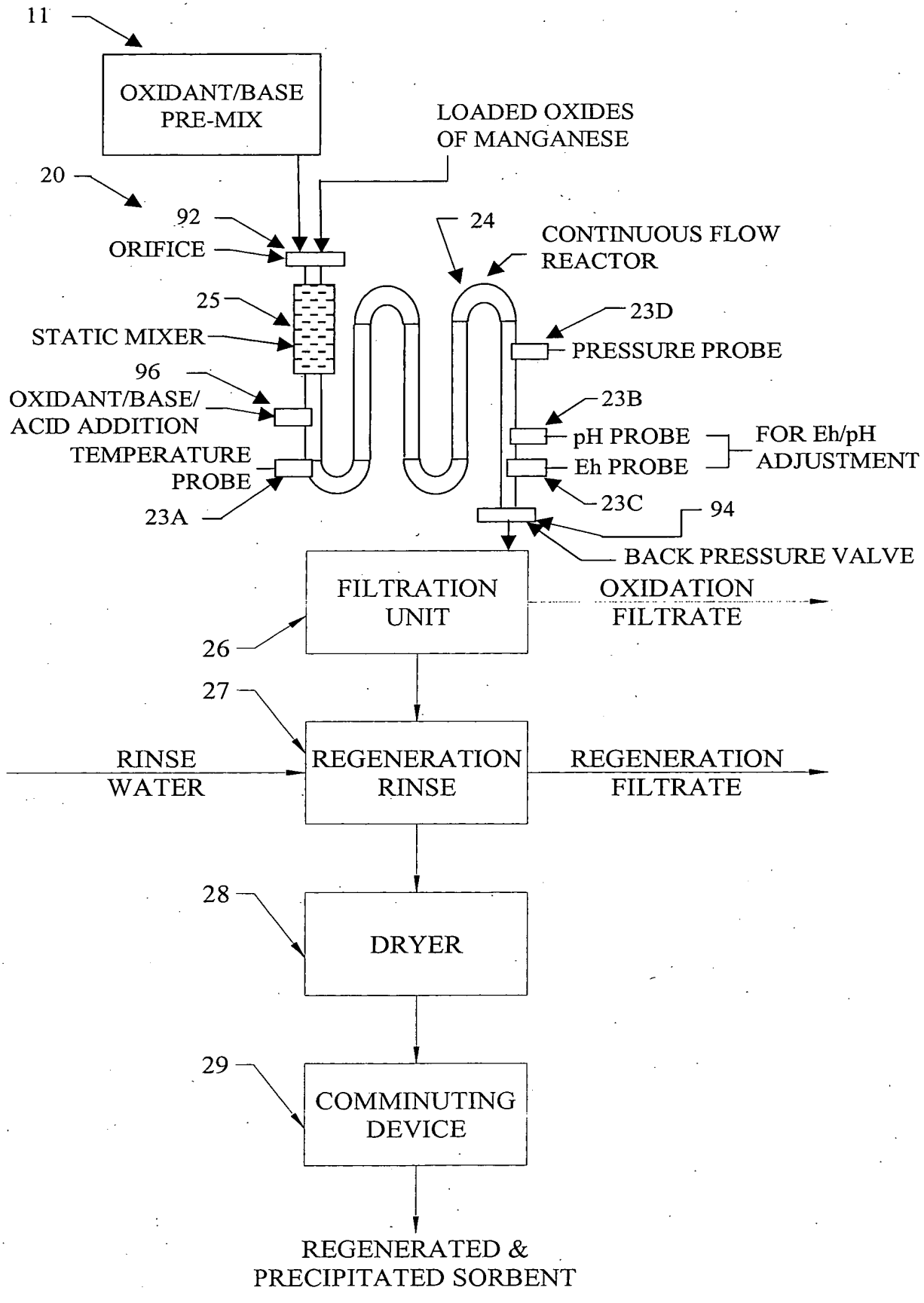

FIGURE 5
REGENERATION & PRECIPITATION OF SORBENT

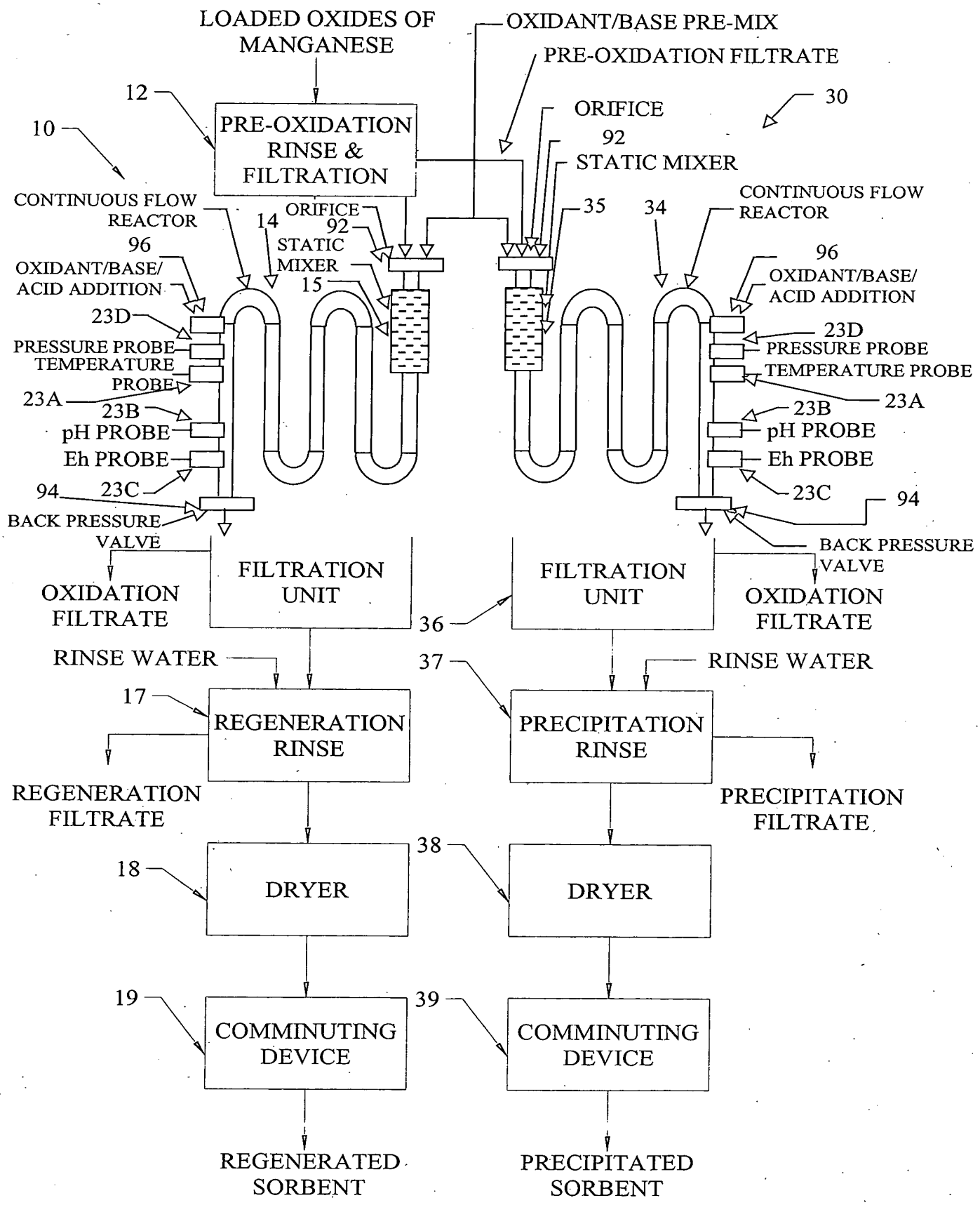

FIGURE 6
PRE-TREATMENT OF VIRGIN SORBENT

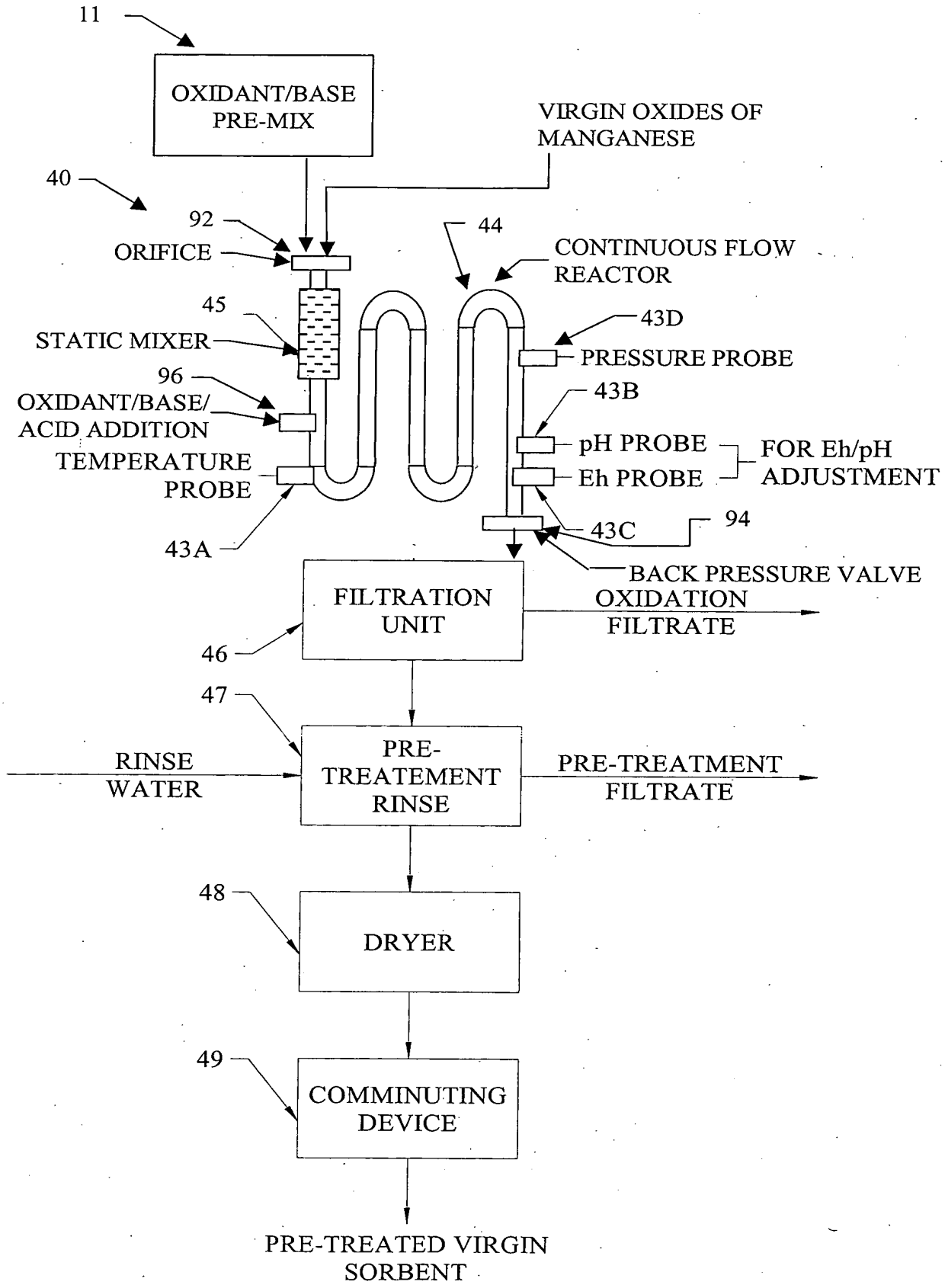

FIGURE 7
PRECIPITATION OF VIRGIN OXIDES OF MANGANESE SORBENT

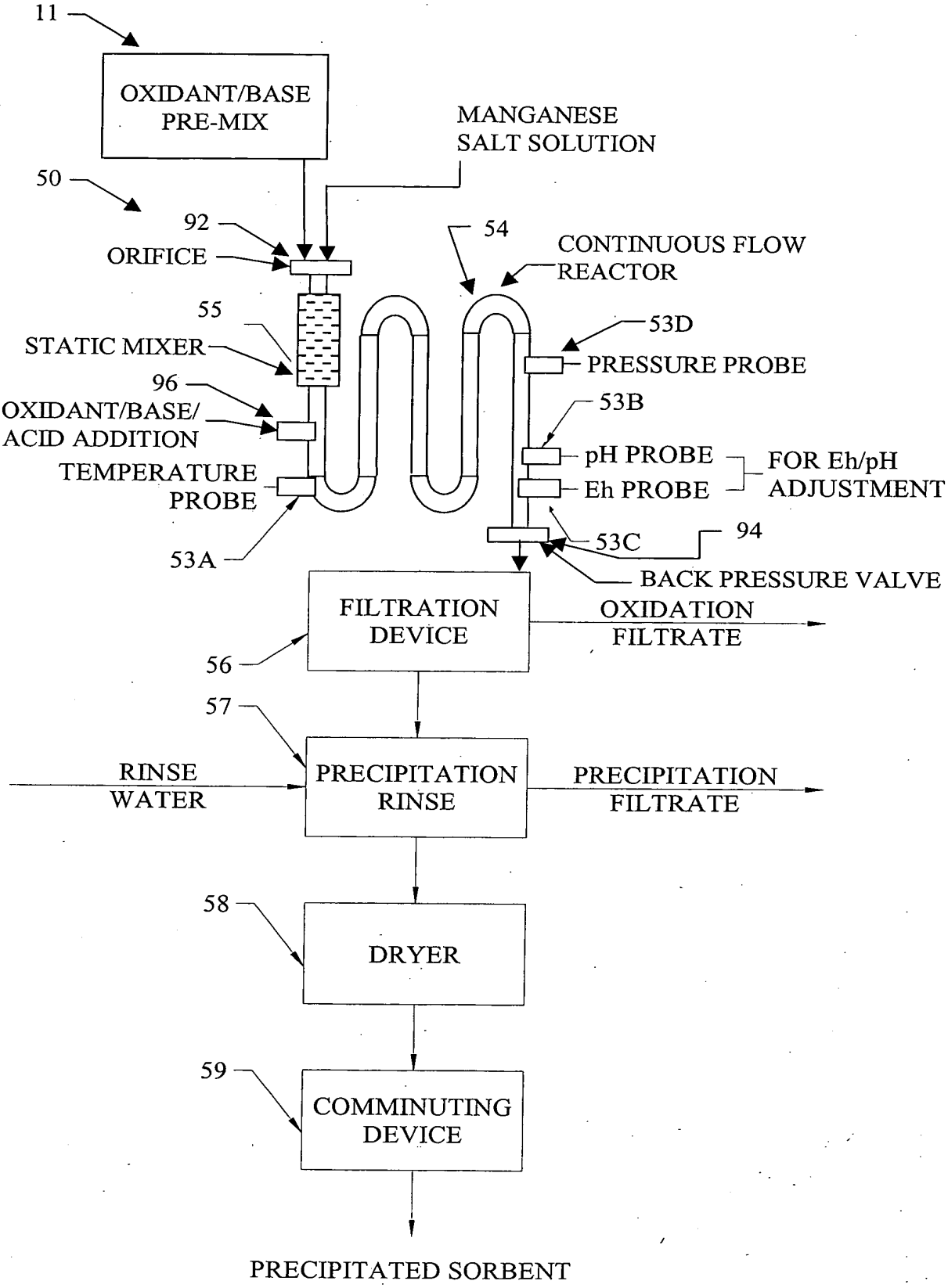

FIGURE 8

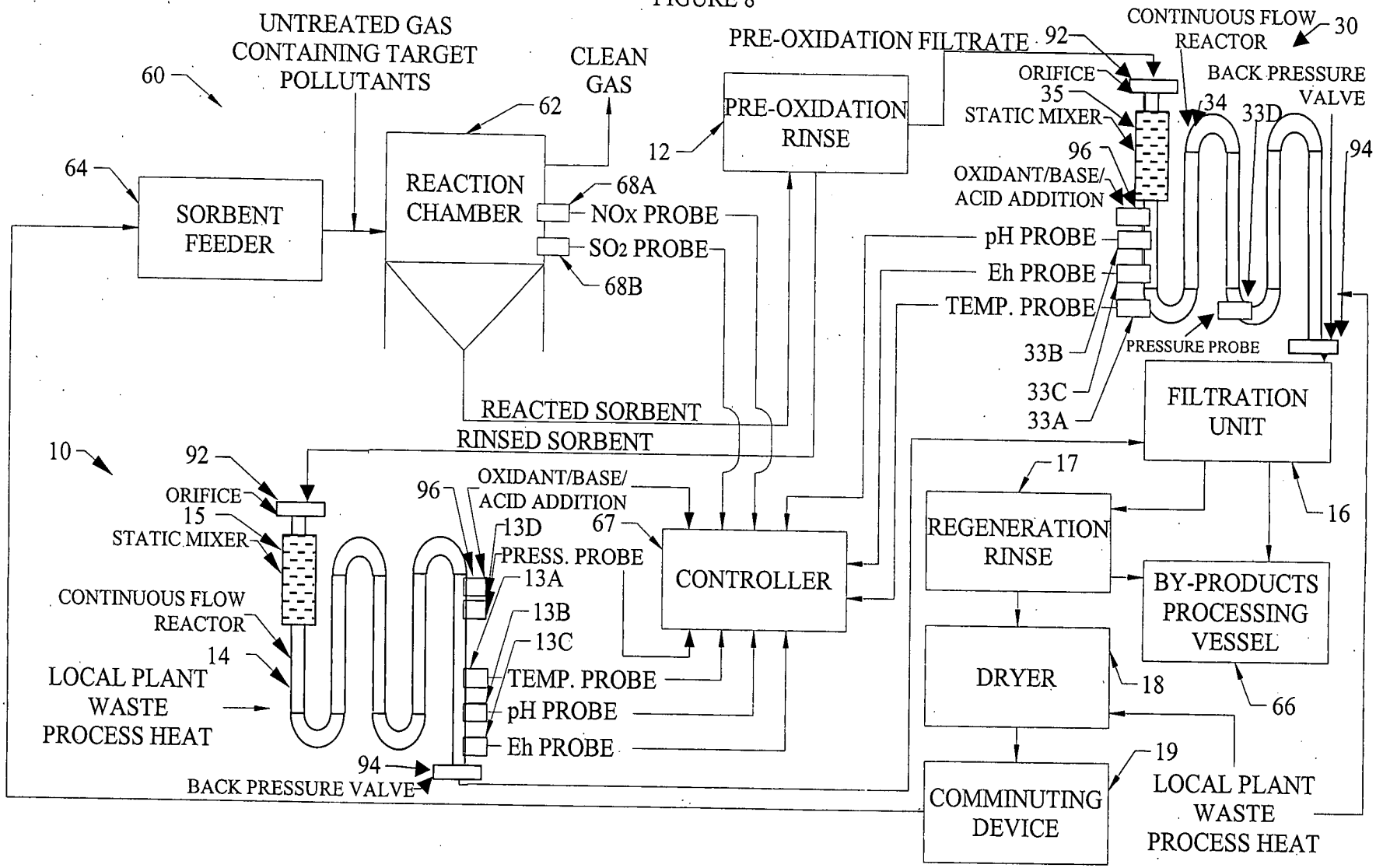
UNTREATED GAS CONTAINING TARGET POLLUTANTS
60
CLEAN GAS
62
PRE-OXIDATION FILTRATE
92
CONTINUOUS FLOW REACTOR
30
ORIFICE
35
STATIC MIXER
34
33D
BACK PRESSURE VALVE
94
96
OXIDANT/BASE/ ACID ADDITION
64
SORBENT FEEDER
REACTION CHAMBER
68A
NOx PROBE
SO2 PROBE
68B
12
PRE-OXIDATION RINSE
pH PROBE
Eh PROBE
TEMP. PROBE
33B
33C
33A
PRESSURE PROBE
FILTRATION UNIT
REACTED SORBENT
RINSED SORBENT
10
92
ORIFICE
15
STATIC MIXER
96
OXIDANT/BASE/ ACID ADDITION
13D
PRESS. PROBE
13A
13B
13C
67
CONTROLLER
17
REGENERATION RINSE
16
BY-PRODUCTS PROCESSING VESSEL
CONTINUOUS FLOW REACTOR
14
LOCAL PLANT WASTE PROCESS HEAT
TEMP. PROBE
pH PROBE
Eh PROBE
DRYER
18
66
94
BACK PRESSURE VALVE
19
COMMINUTING DEVICE
LOCAL PLANT WASTE PROCESS HEAT

FIGURE 9

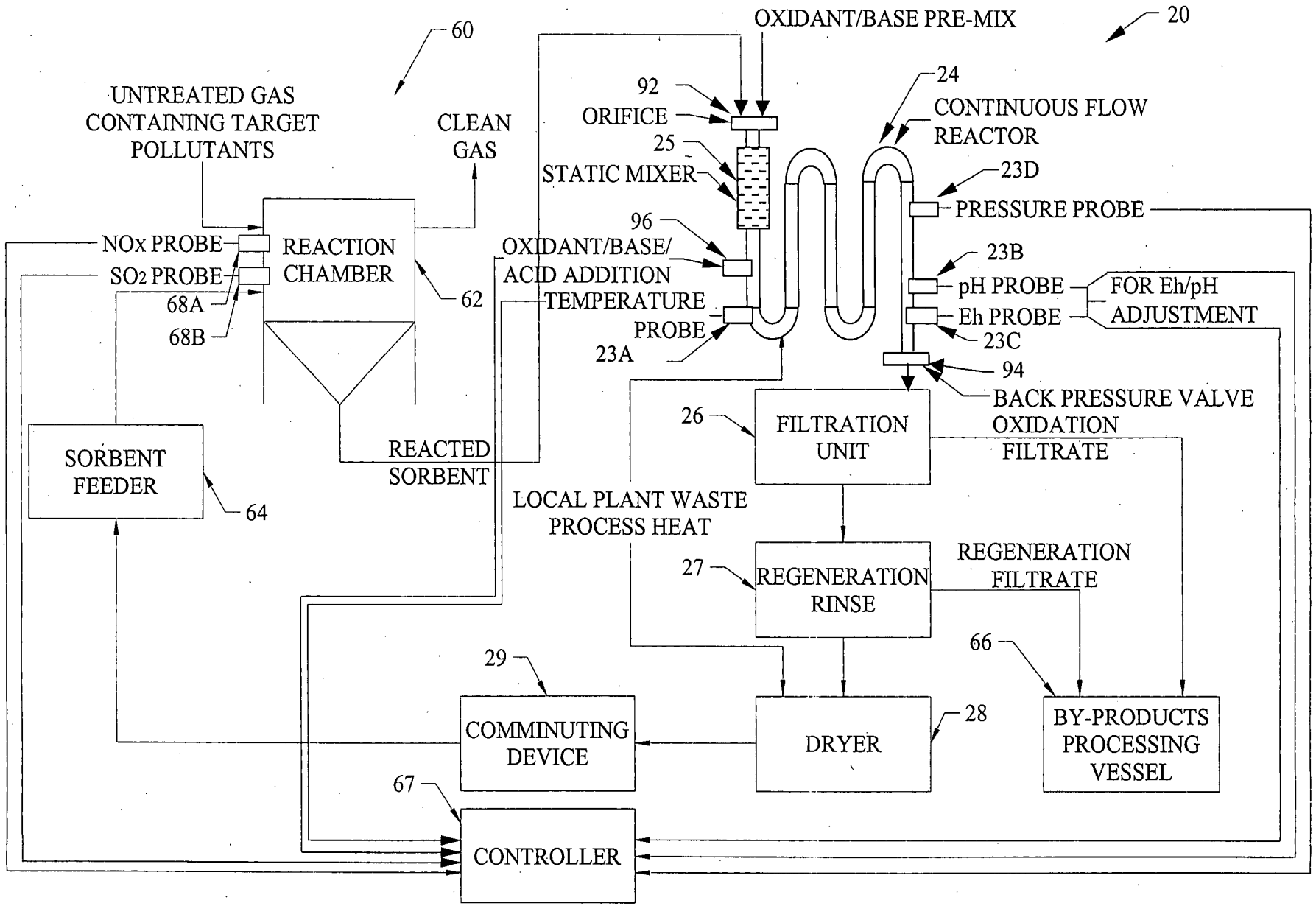
60
OXIDANT/BASE PRE-MIX
20
UNTREATED GAS CONTAINING TARGET POLLUTANTS
CLEAN GAS
92
ORIFICE
24
CONTINUOUS FLOW REACTOR
25
STATIC MIXER
23D
PRESSURE PROBE
96
NOx PROBE
SO2 PROBE
68A
68B
REACTION CHAMBER
62
OXIDANT/BASE/ ACID ADDITION
TEMPERATURE PROBE
23A
23B
pH PROBE
Eh PROBE
FOR Eh/pH ADJUSTMENT
23C
94
BACK PRESSURE VALVE
26
FILTRATION UNIT
OXIDATION FILTRATE
SORBENT FEEDER
64
REACTED SORBENT
LOCAL PLANT WASTE PROCESS HEAT
27
REGENERATION RINSE
REGENERATION FILTRATE
66
29
COMMINUTING DEVICE
DRYER
28
BY-PRODUCTS PROCESSING VESSEL
67
CONTROLLER

FIGURE 10

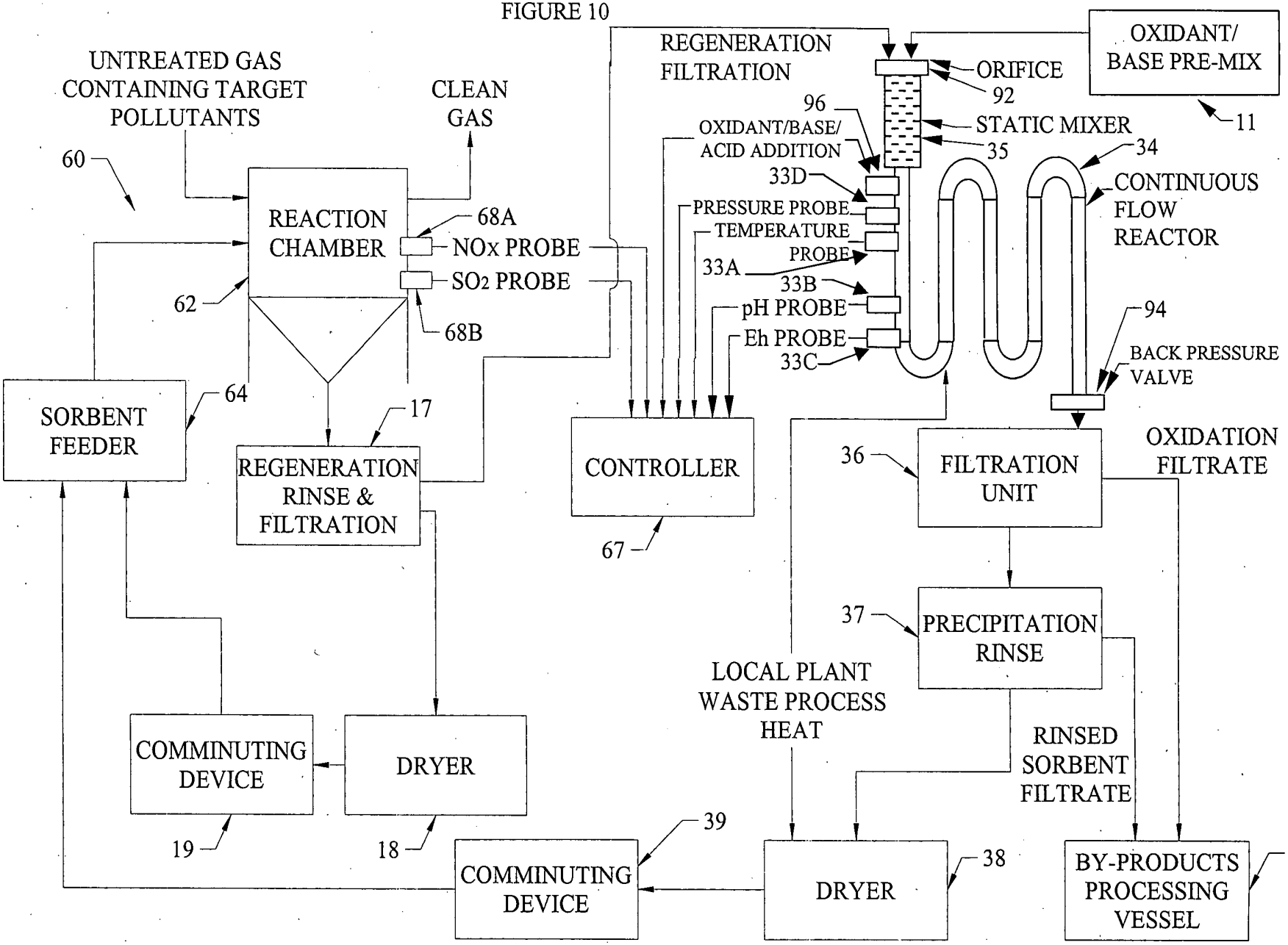
UNTREATED GAS CONTAINING TARGET POLLUTANTS
CLEAN GAS
60
REACTION CHAMBER
68A
NOx PROBE
SO2 PROBE
62
68B
SORBENT FEEDER
64
17
REGENERATION RINSE & FILTRATION
CONTROLLER
67
REGENERATION FILTRATION
ORIFICE
92
OXIDANT/ BASE PRE-MIX
11
96
STATIC MIXER
35
OXIDANT/BASE/ ACID ADDITION
34
33D
CONTINUOUS FLOW REACTOR
PRESSURE PROBE
TEMPERATURE PROBE
33A
33B
pH PROBE
Eh PROBE
33C
94
BACK PRESSURE VALVE
OXIDATION FILTRATE
36
FILTRATION UNIT
37
PRECIPITATION RINSE
LOCAL PLANT WASTE PROCESS HEAT
RINSED SORBENT FILTRATE
COMMINUTING DEVICE
DRYER
19
18
39
COMMINUTING DEVICE
DRYER
38
BY-PRODUCTS PROCESSING VESSEL
66

FIGURE 11
ELECTROLYTIC CELL & BY-PRODUCTS